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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,108	11/28/2001	Johan Loccufier	27500-11	2519

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201 W. McBee Avenue  
Greenville, SC 29603

EXAMINER

FLETCHER III, WILLIAM P

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 09/11/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/996,108

Applicant(s)

LOCCUFIER ET AL.

Examiner

William P. Fletcher III

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED OFFICE ACTION

### I. Form & Content of Application

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#### Information Disclosure Statement

Receipt is acknowledged of applicant's IDS filed 28 November 2001. The references listed therein have been fully considered and an initialed, signed, and dated copy of the form  
10 PTO-1449 is attached to this Office action.

#### Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which  
15 the claims are directed.

The following title is suggested: PREPARATION OF LITHOGRAPHIC PRINTING PLATE BY COMPUTER-TO-PLATE INK JET METHOD UTILIZING AMIDINE-CONTAINING OLEOPHILIZING COMPOUND.

#### 20 Abstract

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new

abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

The sheet on which the abstract appears also contains the title and continuing data. Continuing data should appear in the first line of the specification, just below the title. Additionally, the continuing data was placed in such a fashion that holes were punched through this information when the papers were entered into the file wrapper. Sufficient top margins should be left on all application papers so as to allow holes to be punched.

The abstract of the disclosure is further objected to because it comprises two paragraphs. The abstract must be a single paragraph. Correction is required. See MPEP § 608.01(b).

In drafting a new abstract, applicant is encouraged to consider the following helpful information:

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents,

particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specification

The specification is objected to for containing the following minor informalities:

5

p. 1, l. 2        20001 should apparently read 2001

p. 2, l. 3        "fountain should apparently read "fountain"

p. 3, l. 16       system should apparently read systems

p. 5, l. 16       US-P- 5 511 477 should apparently read U.S.

10                Patent No. 5,511,477

p. 5, l. 24       US-P- 5 312 654 should apparently read U.S.

Patent No. 5,312,654

p. 6, l. 10       recites "Research Disclosure." Who disclosed the  
research and, if not the same, who published the  
15                disclosure?

p. 6, l. 19       JN- 57/038142 should apparently read JP-  
57/038142

p. 6, l. 24       JN- 07/108667 should apparently read JP-  
07/108667

20   p. 6, l. 31       US-P- 5,213,041 should apparently read U.S.  
Patent No. 5,213,041

p. 9, l. 13       follwing should apparently read following

p. 14 recites several trademarks. Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks. The use of the symbol "TM" need not appear unless actually a part of the trademarked name.

p. 14, l. 19 *mPa.s* should apparently read *mPa•s*

p. 14, l. 21 *mPa.s* should apparently read *mPa•s*

p. 15, l. 22 the phrase *such as e.g.* is redundant.

p. 16, l. 11 *hydroxydes* should apparently read *hydroxides*

15 p. 16, l. 24 *US-P- 3,971,660* should apparently read *U.S. Patent No. 3,971,660*

p. 16, l. 24 *US-P- 4,284,705* should apparently read *U.S. Patent No. 4,284,705*

20 Appropriate correction is required.

#### Claims

Claim 1 recites "...functional amidine group..." at p. 19, l. 7. This phrase is adequately defined in the specification (see p. 8, for example) but applicant's intended meaning would be more clearly conveyed by the phrase "amidine functional group."

5 The examiner has interpreted the phrase as such in examining the claims on their merits.

## II. Rejections under 35 U.S.C. § 102

10 The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

15 (e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

25 (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

30



> **Claims 1 - 6** are rejected under 35 U.S.C. § 102(e) as being anticipated by Kato {US 6,098,545; filed 17 December 1998; published 08 August 2000}.

5 With respect to claim 1, Kato teaches a method for the preparation of a lithographic printing plate [claim 1, c. 51, l. 31]. The method comprises dispensing information-wise, by means of ink jet printing, droplets of a fluid onto the surface of a lithographic receiver [c. 31, ll. 1 - 13; claim 1, c. 51, ll. 21  
10 - 24 and ll. 30 - 32]. The fluid contains an oleophilizing compound having in its chemical structure an amidine functional group capable of reacting with the surface of the lithographic receiver [c. 13, l. 15 and c. 15, l. 50].

Note: A "fluid" is defined as "a substance (as a liquid  
15 or gas) tending to flow or conform to the outline of its container" [*Merriam-Webster's Collegiate Dictionary*, 10<sup>th</sup> Ed., p. 449]. Based on this definition, it is the examiner's position that the liquid dispersion of resin particles satisfies applicant's limitation requiring a fluid.

20 Note: The examiner has interpreted "oleophilizing" as "rendering oleophilic." The examiner has interpreted "oleophilic" according to its common art-recognized and art-specific definition: "receptive to printing inks" [ see, for

example, c. 1, ll. 10 - 20 of US 3,131,630]. Therefore, the examiner has interpreted "oleophilizing" as "rendering receptive to printing inks." Since the resin deposited by the ink jet is ink receptive in a lithographic printing process, it is the  
5 examiner's position that the resin is oleophilizing [see, for example, c. 31, ll. 47 - 54].

Note: Insofar as the oleophilizing compound remains on the surface of the lithographic receiver and forms an ink-receptive image, it is the examiner's position that the  
10 oleophilizing compound as a whole, as well as any functional groups it may contain, is/are capable of reacting with the surface of the lithographic receiver.

With respect to claims 2 - 3, Kato teaches that the amidine  
15 group is a heterocyclic amidine group, specifically, an imidazoline group [c. 13, l. 15 and c. 15, l. 50].

With respect to claim 4, Kato teaches that the oleophilizing compound is present in said fluid in an amount  
20 ranging from 0.1% to 20% by weight [c. 17, l. 41].

With respect to claim 5, Kato teaches that the fluid further contains a colorant [c. 23, ll. 25 - 30].

With respect to claim 6, Kato teaches that the surface of the lithographic receiver is metallic, specifically aluminum (Al) [c. 27, ll. 38 - 45].

5

### III. Rejections under 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

10 Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20 > **Claims 1 - 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zerillo {US 4,833,486} in view of Breton et al. {US 6,106,599}.

25 With respect to claims 1 - 3, Zerillo teaches a process for the preparation of a lithographic printing plate [c. 1, l. 60 - c. 2, l. 44]. The method comprises dispensing information-wise, by means of ink jet printing, droplets of a fluid onto the

surface of a lithographic receiver [c. 1, l. 60 - c. 2, l. 44]. Specifically, the process of Zerillo comprises melting a solid ink that is applied in liquid form by the ink jet and solidifies essentially upon contact with the receiver [c. 3, ll. 20 - 26].

5       Note:       The examiner has interpreted the term "oleophilizing" as above. More specifically, Zerillo teaches: "The hydrophobic image repels the water but attracts the ink, and thus ink is applied to the image. The inked image is then used to make lithographic copies" [c. 1, ll. 18 - 21].

10       Therefore, it is the examiner's position that the ink deposited by the ink jet in the process of Zerillo is an oleophilizing compound.

      Note:       The ink of Zerillo may be a solid that is melted and applied as a liquid [c. 3, ll. 20 - 26]. The examiner has  
15       interpreted the term "fluid" as above. Again, since the ink is liquid - at least during its application - it is the examiner's position that the ink is a fluid.

      Zerillo does not teach that the fluid contains an oleophilizing compound having in its chemical structure an  
20       amidine functional group capable of reacting with the surface of the lithographic plate.

      Breton et al. teach an acoustic ink jet printing method and inks for use therein [c. 1, ll. 20 - 26]. In this process a

phase-change ink (i.e. an ink that changes phase from solid to liquid and is applied as a liquid) is jetted from an ink jet with the aid of acoustic energy [c. 5, ll. 24 - 67]. Breton et al. teach that an acoustic ink jet method is superior to  
5 conventional ink jet processes because it provides improved resolution and exhibits greater reliability [c. 14, l. 14 - c. 15, l. 39]. Breton et al. also disclose that the inks especially suited for use with this acoustic ink jet method comprise a viscosity-modifying compound which may be 2-methyl-2-  
10 imidazoline [c. 9, l. 5].

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the process of Zerillo so as to deposit the fluid by the acoustic ink jet method disclosed by Breton et al. with the desire and  
15 expectation of improved resolution and greater reliability. Further, it would have been obvious to utilize, as the fluid, an ink with an imidazoline viscosity-modifying compound, based on the explicit suggestion to do so by Breton et al.

Note: Since the viscosity-modifying compound forms an  
20 integral part of the ink composition and remains on the receiving layer to form the ink-receptive image, it is the examiner's position that the viscosity-modifying compound is an integral component of the oleophilizing compound and, since it

has an amidine functional group in its chemical structure, meets applicant's claimed limitation of an oleophilizing compound having in its chemical structure an amidine functional group.

Note: Insofar as the ink remains on the surface of the lithographic receiver and forms an ink-receptive image, it is the examiner's position that the ink as a whole, as well as any functional groups it may contain, is/are capable of reacting with the surface of the lithographic receiver.

With respect to claim 4, Breton et al. teach that the imidazoline viscosity-modifying compound is present in the fluid in an amount ranging from about 1% to 59% by weight [c. 11, l. 34]. This range overlaps applicant's claimed range of 0.01% to 6% by weight. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists [see MPEP § 2144.05].

With respect to claim 5, both Zerillo et al. and Breton et al. teach that the fluid further contains a colorant [Zerillo c. 4, ll. 22 - 46; Breton et al. c. 7, ll. 52 - 53].

With respect to claim 6, Zerillo teaches that the surface of the lithographic receiver is metallic; in a specific example, aluminum (Al) [c. 3, ll. 31 - 41].

> **Claim 7** is rejected under 35 U.S.C. § 103(a) as being unpatentable over Zerillo in view of Breton et al., as applied to claim 6 above, in further view of Arimatsu et al. {US  
5 5,312,654}.

Zerillo in view of Breton et al. teach all the limitations of this claim, as described above, except: that the metallic surface of the lithographic receiver is a grained and anodized  
10 aluminum.

At c. 3, ll. 31 - 41, Zerillo teaches that any hydrophilic receiver may be used, with an Al receiver being particularly favored for its durability. Arimatsu et al. teach that, when manufacturing a lithographic printing plate by an ink jet  
15 process similar to that of Zerillo, and when the lithographic receiver is an aluminum plate, that "it is preferable to subject the plate to a graining treatment...followed by an anodizing treatment" [c. 6, ll. 7 - 14].

It would have been obvious to one of ordinary skill in the  
20 art, at the time the invention was made, to modify the process of Zerillo in view of Breton et al., so as to grain and anodize the aluminum lithographic support. One of ordinary skill in the art would have been motivated to do so by both the teaching of

Zerillo that any hydrophilic support may be used (especially Al) and the explicit teaching of Arimatsu et al. that doing so is preferable.

5 > **Claims 8 - 10** are rejected under 35 U.S.C. § 103(a) as being unpatentable over Zerillo in view of Breton et al., as applied to claim 1 above, in further view of Toyama et al. {US 4,686,138}.

10 Zerillo in view of Breton et al. teach all the limitations of these claims except: with respect to claim 8, that the lithographic receiver comprises a support and a cross-linked hydrophilic layer; with respect to claim 9, that the hydrophilic layer comprises an inorganic pigment; and, with respect to claim  
15 9, that the inorganic pigment is chosen from an oxide or hydroxide of beryllium (Be), magnesium (Mg), aluminum (Al), silicon (Si), gadolinium (Gd), arsenic (As), indium (In), tin (Sn), antimony (Sb), tellurium (Te), lead (Pb), bismuth (Bi), titanium (Ti), or a transition metal.

20 At c. 3, ll. 31 - 41, Zerillo teaches that any hydrophilic receiver may be used, including paper plates known in the art. Toyama et al. teach a lithographic receiver comprising a support (which may be paper) and a cross-linked hydrophilic layer [c. 3,



11. 10 - 35 and c. 4, l. 65 - c. 5, l. 5]. The cross-linked hydrophilic layer further contains an inorganic pigment with particularly preferred examples being oxides of silicon (Si) [c. 3, ll. 36 - 43]. Toyama et al teach that their receiver  
5 possesses good hydrophilicity and fixes printing inks well [c. 2, ll. 8 - 12].

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the process of Zerillo in view of Breton et al. so as to utilize, as the  
10 lithographic receiver, the receiver of Toyama et al. One of ordinary skill in the art would have been motivated to do so by the teaching of Zerillo that any hydrophilic support may be used (including paper) and the teaching of Toyama et al. that their support gives improved hydrophilicity and fixing of printing  
15 inks.

#### IV. Conclusion

Any inquiry concerning this communication or earlier  
20 communications from the examiner should be directed to William Phillip Fletcher III whose telephone number is (703) 308-7956. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned  
5 are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

10

William Phillip Fletcher III  
Patent Examiner  
United States Patent & Trademark Office  
Group Art Unit 1762

*wpf*

September 5, 2002

  
**MICHAEL BARR**  
**PRIMARY EXAMINER**